INTERTEK - CSR441
Heating fuel oil

XBEE
Natural Fuel Additive

Intertek Caleb Brett

As per some Xbee users' request, it has been decided to compare a heating fuel in compliance with the norm CSR 441 to the same fuel treated with Xbee enzyme biotechnology at a ratio of 4000:1.

Tests	Methods	Results				Units	Limits
		w/o aft. 1 month	w/ aft. 1 month	w/o aft. 6 months	w/aft. 6 months		
Density at 15°C	NF EN ISO 12185	0.8532	0.8532	0.8534	0.8534	Kg/m3	0.830-0.880
Distillation	NF EN ISO 3405						
Condensed at 250°C	NF EN ISO 3405	38.8	38.7	38.8	39.3	% (v/v)	65 max
Condensed at 350°C	NF EN ISO 3405	88.9	88.8	91.4	88.9	% (v/v)	85 mini
Viscosity at 20°C	NF EN ISO 3104	4.057	4.068	4.075	4.044	cSt	9.5 max
Sulfur	NF EN ISO 20846	0.13	0.14	0.14	0.14	% (m/m)	0.2 max
Water	NF EN ISO 12937	75	80	60	64	mg/kg	200 max
Cetane index measured	ASTM D 6890	42.8	42.9	43.8	43.4	N/A	40.0 mini
Carbon residue	NF EN ISO 10370	< 0.01	< 0.01	< 0.01	< 0.01	% (m/m)	0.35 max
Oxidation stability	NF EN ISO 12205	5	4	5	3	g/m3	25 max
Flash Point	T 60-103	66	67	64	64	°C	55 mini
Pour Point	NF EN 23015	-3	-3	-3	-3	°C	+2 max
CFPP	NF EN 116	-6	-7	-6	-7	°C	-4 max
Electrical conductivity at 20°C	ISO 6297	195	190	240	240	pS/m	150 mini
Bacterial test	NF M 07070					-	
Aeroby bacteria	NF M 07070	none	none	none	none	-	none
Yeasts	NF M 07070	none	none	none	none	calculation	none
Molds	NF M 07070	none	none	none	none	calculation	none
Aspect/Color	Visual	C & L / red	C & L / red	C & L / red	C & L / red	N/A	C & L / red
Flow Point	NF T 60-105	-30	-33	-33	-33	°C	-9 max
Existing Sediment	NF M 07-020	< 0.01	< 0.01	< 0.01	< 0.01	% (m/m)	0.10 max

Certification

AFAQ ISO 9001 VERSION 2000

www.afaq.org

ISO 9001:2000

ISO International Organization for Standardization

www.iso.org

Accreditation

cofrac ESSAIS

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